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## **APPENDIX**

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**SPILL PREVENTION, CONTROL, AND COUNTERMEASURES  
BEST MANAGEMENT PLAN**

**N O A A**

**NATIONAL WEATHER SERVICE  
Reno Facility  
Virginia Peak  
Nevada**

Designated Person Responsible for Spill Prevention (DRO):

Printed Name: Jane Hollingsworth - MIC

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Telephone: (775) 673-8100

The Regional Environmental Compliance Officer (RECO) has reviewed the facility and determined that an SPCC Plan is not required per 40 CFR 112. This Plan is developed strictly as a Best Management Plan. The determination is based on :

\_\_\_\_\_ The facility does not exceed capacity.

  X   The facility meets capacity requirements but, a discharge will not reach navigable waterways.

RECO Printed Name: Thanh Minh Trinh, P. E.  
Phone: (206) 526-6647

RECO Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **I - GENERAL INFORMATION**

### **A. GENERAL**

This section of the Best Management Practices plan provides general information about the facility.

#### **Name**

1. National Weather Service Radar Data Acquisition Facility, Virginia Peak , NV

2. **Date of Initial Operation**

1994 — Aboveground Fuel Tank Installed

3. **Location**

National Weather Service RDA Site  
Street: Virginia Peak - 25 Miles NE of NWS Reno Office  
City: Reno  
State/Zip Code: Nevada  
Latitude: 35° -45'-15" North  
Longitude: 119°-27'-44" West  
Elevation: 8299 Ft. MSL  
Phone: 775-673-8100

4. **Name and Address of Operator**

National Weather Service Forecast Office  
2350 Raggio Parkway  
Reno, Nevada 89512  
Phone: 775-673-8100

5. **Facility Contacts**

<u>Name</u>	<u>Title</u>	<u>Telephone Number</u>
Mike Freitas	Electronic Tech.	(775) 673-8102
Jane Hollingsworth	MIC	(775) 673-8100

## **B. SITE DESCRIPTION AND OPERATIONS**

This section describes the site and its operations.

### **1. Facility Location, Layout, and Operations**

The facility is located on Virginia Peak in Washoe County, about 25 miles northeast of downtown Reno (APPENDIX J, FIGURE 1). Access to the site is by wheeled or tracked vehicle or by helicopter. The unpaved access road to the site covers a distance of approximately 16-miles with the last 7-miles being steep mountain road which is not accessible with wheeled vehicle during several months when snow covers the road. This road is very difficult to traverse during rain or snow conditions. Access time from the Weather Forecast Office (WFO) in Reno can be from one to three hours depending upon the road and weather conditions. Radar data from this site are transmitted back to the WFO via telephone lines. The site is on land owned by the federal government and is administered by the Bureau of Land Management (BLM). The BLM granted a Right-of-Way Reservation for use of this site by the NWS. The site consists of a plot of ground approximately 210' x 200' which contains the NWS Radar Data Acquisition (RDA) facility which includes a 25-meter high radar antenna tower with a radome and antenna and a steel structured Snow Shelter which covers an Equipment Shelter, a Generator Shelter and an Emergency Living Shelter along with a graveled parking area and miscellaneous meteorological instrument and antennas. The site is located on a flat mountain top peak with steep sides, near the facility, on the east and on the west (Appendix J -Figure 2). A 1,000-gallon, Convault, Aboveground Storage Tank (AST) and two 240 gallon inside day-tanks supply diesel fuel to an emergency generator. The AST is located in a non-fenced area adjacent to the west side of the Snow Shelter and the two Day-Tanks are located inside the Generator Shelter which is located within the Snow Shelter.

### **2. Fuel Ullage**

Records of past fuel usage indicate that this site will use approximately 800-gallons of #1 Diesel Fuel each year. NWS personnel stated that the AST is normally filled once and sometime twice each year depending upon the amount used. The generator is run once each week for an hour for maintenance and testing purposes. The generator is sometimes started manually from the WFO in Reno when weather conditions threaten to interrupt the commercial power. Fuel consumption depends on the frequency and duration of periods when the generator is operated.

### **3. Fuel Storage**

Piping for this system goes from the AST to a transfer pump, located in the Generator Shelter, and then into the day tanks. The transfer is automatic and thus the day tanks are maintained in a near-full condition. Fuel for the generator is then provided from the day tanks to the generator. The Generator Shelter has sufficient spill containment capability to handle all of the oil in the day tanks but not sufficient containment to also hold the contents of the 1,000-gallon AST. The primary steel tank is encased in a 6-inch thick reinforced concrete secondary containment vault.

#### **4. Spill Risks**

The AST and associated generator are located on a high mountain top site with the general drainage slope of the land towards the west. The soil is porous and rocky. Any spilled fuel oil from the AST or the tank truck will be absorbed by the soil near the AST area (APPENDIX J - FIGURE 2). In the event of a fuel spill, from this site, waterways or water supply should not be impacted.

#### **5. Chemical Storage Locations**

In addition to the diesel fuel used for the emergency power generator, this facility also stores chemicals (e.g., oils, paint, solvents, antifreeze, cleaning compounds and pesticides) for the operation, maintenance and testing of site facilities and equipment. These are stored/used in the following location(s):

**Location :** (Example: Flammable locker in the UPS Shelter)

- a. Unused oil in original containers — Stored in Snow Shelter
- b. Paint in spray cans — Stored in Flammables Locker located in the Snow Shelter
- c. Station Cleaning Supplies — Stored in the Snow Shelter
- d. Lubricants in spray cans — Stored in Flammables Locker located in Snow Shelter
- e. Pesticides — Stored in the Snow Shelter
- f. New Batteries — Stored in the Snow Shelter in the original containers
- g. New Fluorescent Light tubes — Stored in original containers in the Snow Shelter

#### **6. Permits Required (Copies Attached)**

- a.. State of Nevada “Hazardous Materials Storage Permit”, -- Permit was issued by the Nevada State Fire Marshall. Permit # 2357-5577. Annual renewal required. No annual renewal fees required. Permits are sent to Western Region HQ.

## Part II - OPERATIONAL PROCEDURES FOR SPILL PREVENTION

**A. Tank Refueling Operations.** This section discusses the procedures that shall be used during unloading of fuel from the tank truck into the AST to prevent spills. This procedure shall be documented every time refueling occurs using the form found in Appendix A. Copies of this form shall be kept for 5 years.

1. The following procedure shall be used **before** fuel unloading: (APPENDIX A)
  - a. The Facility Manager or his designated representative should determine the available capacity (ullage) of the AST by converting the reading on the fuel gauge to gallons (See Appendix A). This ullage is communicated to the fuel supply contractor and marked in the fueling log.
  - b. Move spill containment equipment such as booms, spill barriers or spill kits into the unloading area.
  - c. Block the tank truck wheels.
  - d. Place drip pans under all pump hose fittings (if applicable) before unloading.
  - e. The Facility Manager or his designated representative and the delivery driver ensure the fill nozzle is placed in the appropriate AST appurtenance.
2. The following procedure shall be used **during** the fuel unloading period: (APPENDIX A)
  - a.. The Facility Manager or his designated representative and the delivery driver shall remain with or near the vehicle and the fuel tanks at all times during unloading. Gauges on the AST and the truck, as well as the fueling nozzle, shall be continuously monitored to ensure the ullage is not exceeded. If the audible high-level alarm sounds, stop the unloading of fuel as soon as possible.
3. The following procedure shall be used **after** fuel unloading is completed: (APPENDIX A)
  - a. Record the amount of fuel transferred to the AST in the log.
  - b. Drain the fill hose and then ensure that all drain valves are closed (if applicable) before removal of the hose from the tank.
  - c. Pour any uncontaminated fuel in the drip pans, tank truck containment pool, or spill pipe spill bucket container into the AST (if it has the capacity) or dispose of appropriately.
  - d. Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.
  - e. Remove the blocks from truck wheels.
  - f. Place a copy of the fuel-unloading checklist in the SPCC BMP.

## **PART III - SPILL COUNTERMEASURES AND REPORTING**

### **A. SPILL COUNTERMEASURES**

This section presents countermeasures to contain, clean up, and mitigate the effects of any oil spills at this site.

A spill containment and cleanup activity will never take precedence over the safety of personnel. No countermeasures will be undertaken until conditions are safe for workers. The **SWIMS** procedure should be implemented as countermeasures:

- S-** Stop the leak and eliminate ignition sources.
  - a. Attempt to seal or some how stop leak if it can be done safely.
  - b. Attempt to divert flow away from any drainage ditch, storm sewer or sanitary sewer with a spill barrier or the contents of spill kit. The spill kit is located in the Generator Building.
  - c. Eliminate all ignition sources in the immediate area.
  
- W-** Warn others.
  - a. Yell out "SPILL". Inform the person in-charge at your facility.
  - b. Account for all personnel and ensure their safety.
  - c. Notify contacts and emergency response contractor as described in the following section for assistance in control and cleanup.
  
- I-** Isolate the area.
  - a. Rope off the area
  
- M-** Minimize your exposure to the spilled material by use of appropriate clothing and protective equipment. If possible, remain upwind of the spilled material.
  
- S-** Standby to assist the emergency response contractor.

**B. SPILL REPORTING (APPENDIX C):**

**1. General Notification Procedures For All Spills:**

Within 24 hours, the responsible person or designee (on this plan title page or in Part 1, A.5.) is directly charged with reporting **all** oil spills that result from facility operations as follows:

- a. In the event of an emergency (e.g, fire, or injury), call **911**.
- b. Notify the appropriate persons within your WFO, Regional Office and line office:

**National Weather Service:**

**Mike Jacob, NWS Environmental Compliance Officer (NWSH)**

**Phone number: (301) 713-1838 Ext. 165, [Jmichael.Jacob@NOAA.GOV](mailto:Jmichael.Jacob@NOAA.GOV)**

**Olga Kebis, NWS Safety Officer (NWSH)**

**Phone number: (301) 713-1838 Ext. 173, [Olga.Kebis@NOAA.GOV](mailto:Olga.Kebis@NOAA.GOV)**

**Robert Kinsinger, Regional, Environmental Coordinator (ECC) in Western Region Headquarters**

**Phone number: (801) 524-5138 Ext. 223 Email: [robert.kinsinger@noaa.gov](mailto:robert.kinsinger@noaa.gov)**

- c. **NOAA Environmental Compliance and Safety Office Program:** E-mail or call your RECO.

**WASC [Thanh.M.Trinh@NOAA.GOV](mailto:Thanh.M.Trinh@NOAA.GOV) Phone: (206) 526-6647**

- d. **LECO – WASHO COUNTY EMERGENCY MANAGEMENT**

**PHONE: 775-328-2095**

**Note: LECO & RECO** must determine if Federal or State notification is required and follow up accordingly. (The State of Nevada requires notification when a release of petroleum products exceeds 25-gallons or if there is a potential contamination of 3 cubic yards of soil.

**Call DCNR at (800) 922-0900, Ext 4670 or (775) 687-4670)**



## 2. Cleanup Contractor Notification

An emergency response contractor should also be notified to assist with the clean up if necessary. **NWS/WFO Las Vegas** has identified and contacted the following contractors that are available for an emergency response:

<u>Contractor(s)</u>	<u>Phone Number</u>
• Safety-Kleen	(775) 331-9400
• Reno Drain Oil Service	(775) 342-0351
• North American Environmental	(775) 831-3532

## 3. Spill Report

Complete a spill report using the format provided in Appendix C. Send this to Your RECO with a copy to the Western Region ECC.

## C. Training

The Environmental/Safety Focal Point and an alternate should be trained in 1) the refueling procedure, 2) countermeasures, and 3) spill reporting. The alternate should be designated in case the primary person is off site at the time of a spill. (See APPENDIX D for Training Outline and Training Record form)

## D. Personal Protective Equipment (PPE)

- PPE information is specified in the **MSDS**
- Eye protection is accomplished by the use of **Chemical Goggles**
- Hand protection is accomplished by the use of **Nitril Gloves**
- Other clothing & equipment - if contaminated, must be removed and laundered before reuse. Items which cannot be laundered should be discarded.
- Appropriate NIOSH - approved respiratory protection to avoid inhalation of mist or vapors which may be present under hot temperature conditions.

## **APPENDIX A**

### **TANK ULLAGE/FUELING LOG AND FUEL UNLOADING PROCEDURES CHECKLIST**

**APPENDIX A-1**  
**TANK ULLAGE AND FUELING LOG**

Station Name: \_\_\_\_\_

Tank Capacity: \_\_\_\_\_ gallons

<b>Date</b>	<b>Initials</b>	<b>Gauge Reading</b>	<b>Initial Volume of Fuel in Tank <sup>a</sup> (Gallons)</b>	<b>Available Capacity or Ullage <sup>b</sup> (Gallons)</b>	<b>Quantity Added (Gallons)</b>	<b>Comments</b>

Notes:

- a. From gage reading
- b. Available capacity = tank capacity - initial volume of fuel in tank

## APPENDIX A-2

### FUEL UNLOADING PROCEDURE CHECKLIST

**Date:** \_\_\_\_\_ **Tank:** \_\_\_\_\_

**NWS Representative:** \_\_\_\_\_ **Supplier:** \_\_\_\_\_

✓	ITEM	DESCRIPTION	COMMENTS
<b>The following six items must be completed before fuel unloading:</b>			
	1	Determine the available capacity (ullage) of the aboveground storage tank (AST) by converting the reading on the fuel gauge to gallons (See Appendix A, Page A-1). This ullage should then be marked in the fueling log and communicated to the tank truck unloading contractor.	
	2	Ensure the audible high-level alarm system and automatic shutoff valve are functioning properly, if applicable.	
	3	Block the wheels of the tank truck.	
	4	Place drip pans under all pump hose fittings (if applicable) after the hose is hooked up to the AST and before unloading.	
	5	Ensure the fill nozzle is place in the appropriate AST appurtenance. In this case, the fill nozzle is placed in the fill pipe connected to the round spill container.	
	6	Ensure the fill nozzle is placed in the appropriate tank appurtenance.	
<b>During unloading:</b>			
	7	Ensure that the facility representative and the tank truck operator remain with the vehicle at all times during unloading.	
	8	Monitor the gauges on the AST and the truck continuously to ensure the ullage is not exceeded. If the audible high-level alarm sounds, stop the unloading of fuel as soon as possible.	
<b>The following six items must be completed after the fuel unloading has been completed:</b>			
	9	Record the amount of fuel unloaded in the log (Appendix A, page A-1).	
	10	Before removing the fill hose from the AST, ensure that it is drained and that all drain valves are closed (if applicable).	
	11	Pour any fuel in the drip pans, tank truck containment pool, or spill container on the fill pipe into the AST (if it has the capacity) or dispose of appropriately (describe how it was disposed of, if applicable).	
	12	Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the AST.	
	13	Remove the blocks from tank truck wheels.	
	14	Place a copy of this fuel-unloading checklist in the SPCC BMP.	

**APPENDIX B**

**TANK INSPECTION CHECKLIST**

MONTHLY INSPECTION CHECKLIST			
Date of Inspection:		Tank Name or No.:	
Date of Last Inspection:		Inspected by:	Signature:
<b>A. TANKS</b>	YES	NO	NOTES
1. Are tanks marked properly?			
2. Is area atop and around tank and within berm free of combustible materials, debris and stains?			
3. Is there any oil on the ground, concrete, or asphalt around the tank?			
4. Are there any visible cracks or indications of corrosion on the tank, at fittings, joints, or seals (such as paint peeling or rust spots)?			
5. Are there any raised spots, dents, or cracks on the tank?			
6. Does it appear that the foundation has shifted or settled?			
7. Is the fuel gauge working properly?			
8. Are all vents clear so they may properly operate?			
9. If rainwater is present within containment, does capacity remain for spill control (if applicable)?			
<b>B. PIPING</b>			
1. Is there any oil on the outside of or under any aboveground piping, hoses, fittings, or valves?			
2. Are aboveground piping, hoses, fittings, or valves in good working condition?			
<b>C. SECURITY/SAFETY/SPILL COUNTERMEASURES</b>			
1. Are lights working properly to detect a spill at night?			
2. Are all locks in the "lock" position?			
3. Are all warning signs properly posted and readable?			
4. Are vehicle guard posts in place and properly secured (if applicable)?			
5. Are spill kits easily accessible, protected from the weather, complete, and replenished if necessary?			
Corrective Actions Required:			

ANNUAL INSPECTION CHECKLIST (Page 1 of 1)			
Date of Inspection:		Tank Name or No.:	
Date of Last Inspection:		Inspected by:	
		Signature:	
<b>A.</b>	<b>MONTHLY CHECKLIST</b>	<b>YES</b>	<b>NO</b>
1.	Have monthly inspection checklists been completed?		
<b>B.</b>	<b>TANKS</b>		
1.	Are all alarms and automatic shutoff devices working properly?		
2.	Is interstitial monitor functioning properly (if applicable)?		
<b>C.</b>	<b>OTHER</b>		
1.			
<b>Corrective Actions Required:</b>			

**APPENDIX C**

**SPILL REPORTING FORM**



**APPENDIX C**  
**SPILL REPORTING**

<b>1. GENERAL</b>		
Name of Facility:	Address:	
Completed By:	Organization:	
Position:	Phone:	
<b>2. SPILL INFORMATION</b>		
Date:	Time:	
Location at Facility:	Quantity:	
Substance Spilled:	Other:	
<b>3. OUTSIDE NOTIFICATIONS: ( Insert telephone numbers)</b>		
<b>Agencies</b>	<b>Record the external regulatory agency representative name when making the calls.</b>	<b>Date &amp; Time</b>
Call <b>911</b> (or the local emergency agency), if there is an immediate emergency		
Regional Management (see Part III Section B subparagraph 1.b) (801) 524-5138 Ext 223		
Line Office Environmental Compliance Officer (see Part III Section B subparagraph 1b) (301) 713-1838 Ext. 165 or Ext 173		
<b>NOAA, RECO</b> (see Part III Section B subparagraph 1.c) (206) 526-6647		
EPA National Response Center or U.S. Coast Guard : (800) 424-8802		
State of Nevada Department of Environmental Protection. (775) 687-4670		
<b>LECO</b> — Washo County Emergency Mgmt. (775) 328-2095 Reno, NV		
<b>4. INFORMATION ON SOURCE AND CAUSE</b>		
<b>5. DESCRIPTION OF ENVIRONMENTAL DAMAGE</b>		
<b>6. CLEANUP ACTION(S) TAKEN</b>		
<b>7. CORRECTIVE ACTION(S) TO PREVENT FUTURE SPILLS</b>		

Note: All information must be filled in. If something is unknown, write "unknown".  
Copies must be sent, preferably by e-mail, to the NWS/NOAA personnel listed above.

**APPENDIX D**

**TRAINING OUTLINE & TRAINING RECORD**

## **APPENDIX D-1**

### **TRAINING OUTLINE: SPILL PREVENTION, CONTROL AND COUNTERMEASURES**

Training will be provided for facility personnel at the following times:

1. System startup or whenever new equipment is installed
2. Within the first week of employment for new personnel
3. Annually

The training will include complete instruction in the elements of the facility's Spill Prevention, Control, and Countermeasure plan and will include the following:

1. Pollution control laws, rules, and regulations including a summary of Title 40 of the Code of Federal Regulations Part 112 "Oil Pollution Prevention" (see Attachment)
2. Fuel Storage System
  - A. Purpose and application of the following system elements:
    1. Tanks
    2. Piping
    3. Pumps
    4. Accessory equipment
    5. Electronic monitors
  - B. Operation, maintenance, and inspection of system elements
3. Spill Prevention
  - A. Potential spill sources
  - B. Spill flow direction and impact on navigable waters
  - C. Procedures to prevent spills, especially during fuel unloading
4. Spill Control
  - A. Secondary containment
  - B. Safety valves
  - C. Pump and equipment shutoff switches
  - D. Use of catch basin inlet covers or other diversionary devices
5. Spill Countermeasures
  - A. Location and use of emergency phone numbers
  - B. Location and use of fire extinguishers
  - C. Location and use of spill cleanup kit
  - D. Stopping the leak

## APPENDIX D-2

### TRAINING REPORT FORM

DATE OF TRAINING	EMPLOYEE TRAINED	TRAINER	REMARKS

**APPENDIX E**

**MATERIALS SAFETY DATA SHEET ATTACHMENT**

**APPENDIX F**

**SPILL CLEANUP KIT INFORMATION ATTACHMENT**

**APPENDIX G**

**FUEL TANK DATA AND INFORMATION**

# **APPENDIX H**

## **PERMITS**



**APPENDIX I**

**PHOTOGRAPHS OF FACILITY TANKS AND PIPING**

## **APPENDIX J (MAPS & DRAWINGS)**

**FIGURE 1: .....Site Location Map**

**FIGURE 2: .....Topographic Map & Site Layout**

**FIGURE 3: ..... Site Piping Diagram**